

ABSTRACT

A partial response is utilized to record information on a medium and then regenerate the information from the medium. A regenerating system undergoes equalization including subjecting a regeneration signal from the medium to the convolution of

$$(k-s \cdot D)$$

(where D is one (1) bit delay operator, and k and s are positive integer).

Such convolution is performed in the regenerating system so that low-frequency band noises are reduced with an improved error rate. The information is decoded from the equalized signal by use of maximum-likelihood detection.